

**ABSTRACT**

A method of separating a thin die (20, 60) from a support body (72) of a semiconductor wafer (70). The thin die (20, 60) being initially attached to the support body (72) by an attachment mechanism (78, 178). The attachment mechanism may

5 be a plurality of tethers (78, 178) that extend between the thin die (20, 60) and the support body (72). The method may include the steps of: positioning the wafer (70) on a rigid backing (110) having a hole (112), the hole (112) positioned beneath the thin die (20, 60); positioning a tip (128) of a handler (120) above the thin die (20, 60), the tip (128) having a passageway (146) to a vacuum source; positioning an

10 ejection pin (150) in a spaced apart relationship beneath the thin die (20, 60); moving the tip (128) of the handler (120) downward toward the thin die (20, 60) to break the attachment mechanism (78, 178) and clamp the thin die (20, 60) between the tip (128) of the handler (120) and the ejection pin (150); and moving the ejection pin (150) upward in the direction of the tip (128) of the handler (120) until the thin die (20, 60)

15 is extracted from the wafer (70).